

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Original) A heat treatment method comprising the step of:  
heating a treatment object by irradiating it through radiation from a lamp light source,  
wherein the radiation from said lamp light source lasts 0.1 to 20 seconds at a time,  
wherein the radiation from said lamp light source is repeated several times.
2. (Original) A heat treatment method comprising the step of:  
heating a treatment object by irradiating it through radiation from a lamp light source,  
wherein the radiation from said lamp light source is pulsatively repeated several times such that the treatment object holds the temperature to its highest for 0.5 to 5 seconds.
3. (Original) A heat treatment method comprising the steps of:  
holding a treatment object in a processing chamber filled with a coolant; and  
heating the treatment object by irradiating it through radiation from a lamp light source,  
wherein the radiation from said lamp light source is held for 0.1 to 20 seconds at a time,  
wherein the radiation from said lamp light source is repeated several times.
4. (Original) A heat treatment method comprising the steps of:

holding a treatment object in a processing chamber filled with a coolant; and  
heating the treatment object by irradiating it through radiation from a lamp light  
source,

wherein the radiation from said lamp light source is repeated several times such  
that the treatment object holds the temperature to its highest for 0.5 to 5 seconds.

5. (Original) A heat treatment method comprising the steps of:  
holding a treatment object in a processing chamber filled with a coolant; and  
heating the treatment object by irradiating it through radiation from a lamp light  
source,

wherein said lamp light source is turned on and the radiation from said lamp light  
source is held for 0.1 to 20 seconds at a time, while an amount of supply of the coolant  
is reduced,

wherein said lamp light source is turned off while a treatment of increasing the  
amount of supply of the coolant as one cycle is repeated several times.

6. (Original) A heat treatment method comprising the steps of:  
holding a treatment object in a processing chamber filled with a coolant; and  
heating the treatment object by irradiating it through radiation from a lamp light  
source,

wherein said lamp light source is turned on while an amount of supply of the  
coolant is reduced,

wherein said lamp light source is turned off while a treatment of increasing the  
amount of supply of the coolant as one cycle is repeated several times, after the  
treatment object holds the temperature to its highest for 0.5 to 5 seconds.

7. (Original) A heat treatment method according to claim 1, wherein said lamp light source is selected from the group consisting of a halogen lamp, a metal halide lamp, a xenon lamp, a high pressure mercury lamp, a high pressure sodium lamp and an excimer lamp.

8. (Original) A heat treatment method according to claim 2, wherein said lamp light source is selected from the group consisting of a halogen lamp, a metal halide lamp, a xenon lamp, a high pressure mercury lamp, a high pressure sodium lamp and an excimer lamp.

9. (Original) A heat treatment method according to claim 3, wherein said lamp light source is selected from the group consisting of a halogen lamp, a metal halide lamp, a xenon lamp, a high pressure mercury lamp, a high pressure sodium lamp and an excimer lamp.

10. (Original) A heat treatment method according to claim 4, wherein said lamp light source is selected from the group consisting of a halogen lamp, a metal halide lamp, a xenon lamp, a high pressure mercury lamp, a high pressure sodium lamp and an excimer lamp.

11. (Original) A heat treatment method according to claim 5, wherein said lamp light source is selected from the group consisting of a halogen lamp, a metal halide lamp, a xenon lamp, a high pressure mercury lamp, a high pressure sodium lamp and an excimer lamp.

12. (Original) A heat treatment method according to claim 6, wherein said lamp light source is selected from the group consisting of a halogen lamp, a metal halide

lamp, a xenon lamp, a high pressure mercury lamp, a high pressure sodium lamp and an excimer lamp.

13. (New) A heat treatment method comprising the step of:  
heating a treatment object having a semiconductor film by irradiating it through radiation from a lamp light source,  
wherein the radiation from said lamp light source lasts 0.1 to 20 seconds at a time,  
wherein the radiation from said lamp light source is repeated several times.

14. (New) A heat treatment method comprising the steps of:  
holding a treatment object having a semiconductor film in a processing chamber filled with a coolant; and  
heating the treatment object by irradiating it through radiation from a lamp light source,  
wherein the radiation from said lamp light source is held for 0.1 to 20 seconds at a time,  
wherein the radiation from said lamp light source is repeated several times.

15. (New) A heat treatment method comprising the steps of:  
holding a treatment object having a semiconductor film in a processing chamber filled with a coolant; and  
heating the treatment object by irradiating it through radiation from a lamp light source,  
wherein said lamp light source is turned on and the radiation from said lamp light source is held for 0.1 to 20 seconds at a time, while an amount of supply of the coolant is reduced,

wherein said lamp light source is turned off while a treatment of increasing the amount of supply of the coolant as one cycle is repeated several times.

16. (New) A heat treatment method according to claim 13, wherein said lamp light source is selected from the group consisting of a halogen lamp, a metal halide lamp, a xenon lamp, a high pressure mercury lamp, a high pressure sodium lamp and an excimer lamp.

17. (New) A heat treatment method according to claim 14, wherein said lamp light source is selected from the group consisting of a halogen lamp, a metal halide lamp, a xenon lamp, a high pressure mercury lamp, a high pressure sodium lamp and an excimer lamp.

18. (New) A heat treatment method according to claim 15, wherein said lamp light source is selected from the group consisting of a halogen lamp, a metal halide lamp, a xenon lamp, a high pressure mercury lamp, a high pressure sodium lamp and an excimer lamp.